

## **CIRM Board Approves Third Clinical Trial for COVID-19**

Posted: June 26, 2020

**Oakland, CA** – Today the governing Board of the California Institute for Regenerative Medicine (CIRM) awarded \$750,000 to Dr. Xiaokui Zhang at Celularity to conduct a clinical trial for the treatment of COVID-19. This brings the total number of CIRM clinical trials to 64, including three targeting the coronavirus.

This trial will use blood stem cells obtained from the placenta to generate natural killer (NK) cells, a type of white blood cell that is a vital part of the immune system, and administer them to patients with COVID-19. NK cells play an important role in defense against cancer and in fighting off viral infections. The goal is to administer these cells to locate the active sites of COVID-19 infection and destroy the virus-infected cells. These NK cells have been used in two other clinical trials for acute myeloid leukemia and multiple myeloma.

The Board also approved two additional awards for Discovery Stage Research (DISC2), which promote promising new technologies that could be translated to enable broad use and improve patient care.

One award for \$100,000 was given to Dr. Albert Wong at Stanford. Dr. Wong has recently received an award from CIRM to develop a vaccine that produces a CD8+ T cell response to boost the body's immune response to remove COVID-19 infected cells. The current award will enable him to expand on the initial approach to increase its potential to impact the Latinx and African American populations, two ethnicities that are disproportionately impacted by the virus in California.

The other award was for \$249,996 and was given to Dr. Preet Chaudhary at the University of Southern California. Dr. Chaudhary will use induced pluripotent stem cells (iPSCs) to generate natural killer cells (NK). These NK cells will express a chimeric antigen receptor (CAR), a synthetic receptor that will directly target the immune cells to kill cells infected with the virus. The ultimate goal is for these iPSC-NK-CAR cells to be used as a treatment for COVID-19.

"These programs address the role of the body's immune T and NK cells in combatting viral infection and CIRM is fortunate enough to be able to assist these investigators in applying experience and knowledge gained elsewhere to find targeted treatments for COVID-19" says Dr. Maria T. Millan, the President & CEO of CIRM. "This type of critical thinking reflects the resourcefulness of researchers when evaluating their scientific tool kits. Projects like these align with CIRM's track record of supporting research at different stages and for different diseases than the original target."

The CIRM Board voted to endorse a new initiative to refund the agency and provide it with \$5.5 billion to continue its work. The 'California Stem Cell Research, Treatments and Cures Initiative of 2020 will appear on the November ballot.

The Board also approved a resolution honoring Ken Burtis, PhD., for his long service on the Board. Dr. Burtis was honored for his almost four decades of service at UC Davis as a student, professor and administrator and for his 11 years on the CIRM Board as both a member and alternate member. In the resolution marking his retirement the Board praised him, saying "his experience, commitment, knowledge, and leadership, contributed greatly to the momentum of discovery and the future therapies which will be the ultimate outcome of the dedicated work of the researchers receiving CIRM funding."

Jonathan Thomas, the Chair of the Board, said "Ken has been invaluable and I've always found him to have tremendous insight. He has served as a great source of advice and inspiration to me and to the ICOC in dealing with all the topics we have had to face."

Lauren Miller Rogen thanked Dr. Burtis, saying "I sat next to you at my first meeting and was feeling so extraordinarily overwhelmed and you went out of your way to explain all these big science words to me. You were always a source of help and support, and you explained things to me in a way that I always appreciated with my normal brain."

Dr. Burtis said it has been a real honor and privilege to be on the Board. "I've been amazed and astounded at the passion and dedication that the Board and CIRM staff have brought to this work. Every meeting over the years there has been a moment of drama and then resolution and this Board always manages to reach agreement and serve the people of California."

At CIRM, we never forget that we were created by the people of California to accelerate stem cell treatments to patients with unmet medical needs, and act with a sense of urgency to succeed in that mission.

To meet this challenge, our team of highly trained and experienced professionals actively partners with both academia and industry in a hands-on, entrepreneurial environment to fast track the development of today's most promising stem cell technologies.

With \$3 billion in funding and approximately 300 active stem cell programs in our portfolio, CIRM is the world's largest institution dedicated to helping people by bringing the future of cellular medicine closer to reality.

For more information go to [www.cirm.ca.gov](http://www.cirm.ca.gov)

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